

Sustainable distribution centre excellence

Retail giant Woolworths received a Platinum Award for distinction in Logistics for creating sustainable supply chain excellence in centralised distribution.

The Woolworths supply chain faced significant challenges in 2004 due to aggressive store rollouts and the associated volume growth. The supply chain defragmented into five distribution centres in Gauteng, which did not support the business strategy of centralised distribution.

At the time, the five Woolworths Gauteng centres were all running at capacity and this negatively influenced the delivery of cost-effective availability.

This necessitated an extensive network analysis study, which concluded that a single centralised facility was required. A centre-of-gravity study incorporated a 20-year view and identified Midrand as the ideal location. Road networks and traffic patterns were also studied as an essential part of the feasibility investigation.

The end result was a DC design of 78,000m², with the flexibility to extend to 150,000 m², from which all Woolworths products – from all supply chains and temperature regimes – could be delivered to retail stores in a single delivery. The DC currently processes Gauteng, Free State and 80 percent of the KwaZulu-Natal volumes.

Sustainability, in support of the Woolworths 'Good Business Journey', was the cornerstone during the design and development of the facility. Most notable are the stringent performance standards demanded to achieve that journey – daily predictable deliveries are made within 15-minute windows every day and achieve high results.

Other key success indicators included:

- The project was completed on time and within budget
- During construction, a BEE rating of 43 percent against the target of 40 percent was delivered.
- DC to store on-time deliveries improved by 9 percent.
- Supplier vehicle turnaround time at DC improved by 27 percent.
- Store vehicle turnaround times improved by 20 percent.
- Supplier primary distribution kilometres reduced by 4.4 percent. DC to stores secondary distribution kilometres reduced by 7.3 percent.
- The overall distribution costs as a percentage to sales are lower than in 2005.



- Future building extensions, allowing for capacity growth for the next 20 years, can be done with no impact on the operation.

Every aspect of the design and construction of the facility was subjected to scrutiny from a social and environmental impact perspective, ensuring that Woolworths minimised the impact on the surrounding environment and communities.

Some key sustainability design initiatives include:

- 14 ha of the site has been preserved as agricultural land.
- The pan on site has been isolated to protect the African Bullfrog, an endangered species.
- Ponds were created to retain rain water – used for all site irrigation.
- A grey water system was installed – used for all toilet flushing.
- A centrally controlled light management system was installed for the DC floor and intelligent lighting in offices.
- Solar heating serves the ablution block.
- Glycol heater mats in freezer floor are heated with reclaimed heat from refrigeration plant.
- Grass plated in roofs where possible to minimise heat build-up
- Air scrubbing – evaporative cooling system cleans air around plant
- Landscaping – all indigenous plantings endemic to Highveld, including 1,500 trees, 210,000 m² hydro seeded and 8,500 m² planted with shrubs, and other gardening developments.

The Woolworths results in market share and competitive advantage are in no small measure due to the company's logistics achievements. Woolworths sets the standards in SA for retailers by setting global standards.